



DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------|------------------------------------|----------------------------------------------|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/>   | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> |  |
| Skid-tube <input type="checkbox"/>                           | Crosstube <input type="checkbox"/>                                                                                                                                                 | Water Jet <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Engineering <input type="checkbox"/> |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Machining <input type="checkbox"/>                           | Small Fab <input type="checkbox"/>                                                                                                                                                 | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Quality <input type="checkbox"/>     |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Thermoforming <input type="checkbox"/>                       | Finishing <input type="checkbox"/>                                                                                                                                                 | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Other <input type="checkbox"/>       |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Large Fab <input type="checkbox"/>                           | Composite <input type="checkbox"/>                                                                                                                                                 | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |

| Root Cause    | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|-----------------------------------------------------|-------------------|--------------------|-------------|--------------|--------------|
| Design        |      |      |     |                                                     |                   |                    |             |              |              |
| Doc/Data      |      |      |     |                                                     |                   |                    |             |              |              |
| Equip/Tooling |      |      |     |                                                     |                   |                    |             |              |              |
| Handling/Pre  |      |      |     |                                                     |                   |                    |             |              |              |
| Material      |      |      |     |                                                     |                   |                    |             |              |              |
| Operator      |      |      |     |                                                     |                   |                    |             |              |              |
| Offset/Setup  |      |      |     |                                                     |                   |                    |             |              |              |
| Process       |      |      |     |                                                     |                   |                    |             |              |              |
| Supplier      |      |      |     |                                                     |                   |                    |             |              |              |
| Training      |      |      |     |                                                     |                   |                    |             |              |              |
| Transport     |      |      |     |                                                     |                   |                    |             |              |              |
| Unapproved    |      |      |     |                                                     |                   |                    |             |              |              |

### FAULT CATEGORY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crimp/Kink/Ripple/Wave<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Crushing<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Marks/Chatter<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damage/Defect<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program<br><input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete/Unqualified<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Misaligned/off center<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Off-set<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge<br><br><input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Set-up<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><br><input type="checkbox"/> Other |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Work Order ID 128183**

Monday, January 12, 2015 10:51:27 AM

**\*128183\***

Page 2

Item ID: 646.9601

Accept

**\*N1900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Upper Cutter Assy

Stop **\*NS2\***

Start Date: 1/12/2015 Start Qty: 5.00

**\*5\***

Cust Item ID:

Required Date: 1/12/2015 Req'd Qty: 5.00

**\*5\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 140                            | Identify as per dwg & Stock Location        | 0.00                 |         |        |              | 6             |               |                  | 15-01-13       |
| <b>*140*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                        | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      | ***IDENTIFY AS PER IAW MPP-120***           |                      |         |        |              |               |               |                  |                |
| 150                            | QC21- Final Inspection - Work Order Release | 0.00                 |         |        |              |               |               |                  |                |
| <b>*150*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                        | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                             |                      |         |        |              |               |               |                  |                |

MLJ 15-01-14

UMF  
15-1-13

# Picklist Print

Monday, January 12, 2015 10:51:32 AM

Page 1

Work Order ID: 128183

**\*128183\***

Parent Item: 646.9601

**\*646 9601\***

Parent Item Name: Upper Cutter Assy

Start Date: 1/12/2015

Required Date: 1/12/2015

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP REV:A 12.08.13 NEW ISSUE DD VERF:JFS

| Component Item ID/<br>Item Name                      | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued    | Status  |
|------------------------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|-------------------|---------|
| 646.9701<br><b>*646 9701*</b><br>Cutter Sub Assembly |                        | Manufactured  | No          |                     |                  | 110             | Each               | 15.0000        | 1           | <del>5</del> |               | DAS<br>41<br>9-89 | 15-1-12 |
|                                                      |                        |               |             |                     |                  |                 |                    |                |             | **           |               |                   |         |

Location Loc Qty Loc Code

cck009 3

117888 1

~~121151~~ 2

cck012 6

121149 6

MF 6

121151 6

646.9811

Manufactured No

110 Each

6.0000

1

~~5~~

DAS

41

9-89

15-1-12

**\*646 9811\***

Upper Deflector

\*\*

Location Loc Qty Loc Code

MF3 6

122595 6

MS21042L08

Purchased No

110 Each

850.0000

3

~~18~~

DAS

41

9-89

15-1-12

**\*MS21042L 08\***

Nut

\*\*

Location Loc Qty Loc Code

CA 101

m129682 101

ST304 749

123900 16

m128401 210

m130325 523

18

# Picklist Print

Monday, January 12, 2015 10:51:32 AM

Page 2

Work Order ID: 128183

**\*128183\***

Parent Item: 646.9601

**\*646 9601\***

Parent Item Name: Upper Cutter Assy

Start Date: 1/12/2015

Required Date: 1/12/2015

Start Qty: 5.00

Required Qty: 5.00

MS27039-08-19

Purchased

No

110

Each

104.0000

3

~~15~~

DAS

**\*MS27039-08-19\***

**\*\***

**41**

15-1-12

Screw

9-89

Location

Loc Qty

Loc Code

ST273A

104

m130505

104

18

NAS1149FN832P

Purchased

No

110

Each

5,082.000

6

~~39~~

DAS

**\*NAS1149FN832P\***

**\*\***

**41**

15-1-12

Washer

9-89

Location

Loc Qty

Loc Code

ST260a

3600

125268

3600

st268

1482

M130388

1482

36

|                                                                                                                                                                                   |    |                                     |                       |                       |                                                                          |                   |                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------|-----------------------|-----------------------|--------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------|
| APICAL<br>INDUSTRIES, INC.                                                                                                                                                        |    | ENGINEERING CHANGE NOTICE NO. 02743 |                       |                       |                                                                          | SHEET 1 OF 1      |                                                                                           |
|                                                                                                                                                                                   |    | DWG NO. 646.9600                    |                       | REV: N/C              | PREPARED BY S. HUFF                                                      | DATE: 01/07/10    | EFFECT ON DWG<br><input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC. |
|                                                                                                                                                                                   |    | DWG TITLE: CUTTER ASSY              |                       |                       |                                                                          |                   |                                                                                           |
| TRANSACTION CODES (TC):<br>A-ADD C-CREATE<br>R-REVISE D-DELETE                                                                                                                    |    | APPROVED BY:                        | ENGR. <i>P. Brans</i> | MFG. <i>Amel G...</i> | QC. <i>Mark L...</i>                                                     | EFFECT NEXT ORDER |                                                                                           |
|                                                                                                                                                                                   |    | REASON: REVISED SCREW LENGTH.       |                       |                       |                                                                          |                   |                                                                                           |
|                                                                                                                                                                                   |    |                                     |                       |                       |                                                                          |                   |                                                                                           |
|                                                                                                                                                                                   |    |                                     |                       |                       |                                                                          |                   |                                                                                           |
|                                                                                                                                                                                   |    |                                     |                       |                       |                                                                          |                   |                                                                                           |
|                                                                                                                                                                                   |    |                                     |                       |                       |                                                                          |                   |                                                                                           |
| 128.183_MLS<br>1501-12                                                                                                                                                            |    |                                     |                       |                       |                                                                          |                   |                                                                                           |
| 3                                                                                                                                                                                 | R  | 601.3157                            | 3                     | 3                     | 3                                                                        | SCREW             | MS27039-0818                                                                              |
|                                                                                                                                                                                   |    |                                     | .9603                 | .9602                 | .9601                                                                    |                   |                                                                                           |
| F/N                                                                                                                                                                               | TC | PART NUMBER                         | QTY                   |                       | DESCRIPTION                                                              |                   | MATERIAL/SPECIFICATION                                                                    |
| DOCUMENTS EFFECTED:                                                                                                                                                               |    |                                     |                       |                       | CHANGE CATEGORY                                                          |                   | DER REVIEW REQUIRED                                                                       |
| <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM |    |                                     |                       |                       | <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR |                   | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO                       |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------|------------------------------------|----------------------------------------------|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/>   | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> |  |
| Skid-tube <input type="checkbox"/>                           | Crosstube <input type="checkbox"/>                                                                                                                                                 | Water Jet <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Engineering <input type="checkbox"/> |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Machining <input type="checkbox"/>                           | Small Fab <input type="checkbox"/>                                                                                                                                                 | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Quality <input type="checkbox"/>     |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Thermoforming <input type="checkbox"/>                       | Finishing <input type="checkbox"/>                                                                                                                                                 | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Other <input type="checkbox"/>       |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Large Fab <input type="checkbox"/>                           | Composite <input type="checkbox"/>                                                                                                                                                 | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |

| Root Cause    | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|-----------------------------------------------------|-------------------|--------------------|-------------|--------------|--------------|
| Design        |      |      |     |                                                     |                   |                    |             |              |              |
| Doc/Data      |      |      |     |                                                     |                   |                    |             |              |              |
| Equip/Tooling |      |      |     |                                                     |                   |                    |             |              |              |
| Handling/Pre  |      |      |     |                                                     |                   |                    |             |              |              |
| Material      |      |      |     |                                                     |                   |                    |             |              |              |
| Operator      |      |      |     |                                                     |                   |                    |             |              |              |
| Offset/Setup  |      |      |     |                                                     |                   |                    |             |              |              |
| Process       |      |      |     |                                                     |                   |                    |             |              |              |
| Supplier      |      |      |     |                                                     |                   |                    |             |              |              |
| Training      |      |      |     |                                                     |                   |                    |             |              |              |
| Transport     |      |      |     |                                                     |                   |                    |             |              |              |
| Unapproved    |      |      |     |                                                     |                   |                    |             |              |              |

### FAULT CATEGORY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crimp/Kink/Ripple/Wave<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Crushing<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Marks/Chatter<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damage/Defect<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program<br><input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete/Unqualified<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Misaligned/off center<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Off-set<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge<br><br><input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Set-up<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><br><input type="checkbox"/> Other |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| REVISIONS |                             |          |          |
|-----------|-----------------------------|----------|----------|
| REV.      | DESCRIPTION                 | DATE     | APPROVED |
|           | LAST PROTOTYPE REVISION PRI |          | THC      |
| THC       | FINAL RELEASE               | 04/30/07 | P. BRAYO |



02742

1. IDENTIFY IAW MPP-120
2. APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 1, 6, 7, & 8 UPON ASSEMBLY

|               |       |       |        |                                                                                                                                                                                                                                                                                                     |                        |                        |  |               |      |
|---------------|-------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------|--|---------------|------|
| 1             |       |       |        | 8                                                                                                                                                                                                                                                                                                   | 646.9813               | LOWER DEFLECTOR LOW    |  |               |      |
|               | 1     |       |        | 7                                                                                                                                                                                                                                                                                                   | 646.9812               | LOWER DEFLECTOR HIGH   |  |               |      |
|               |       | 1     |        | 6                                                                                                                                                                                                                                                                                                   | 646.9811               | UPPER CUTTER DEFLECTOR |  |               |      |
| A/R           | A/R   | A/R   | 5      | 601.2045                                                                                                                                                                                                                                                                                            | RTV, LOCITE 598        |                        |  |               |      |
| 3             | 3     | 3     | 4      | 601.1541                                                                                                                                                                                                                                                                                            | LOCKNUT                |                        |  | MS21042108    |      |
| 3             | 3     | 3     | 3      | 601.2765                                                                                                                                                                                                                                                                                            | SCREW                  |                        |  | MS27039-0619  |      |
| 6             | 6     | 6     | 2      | 601.2764                                                                                                                                                                                                                                                                                            | WASHER                 |                        |  | MS11149F1533P |      |
| 1             | 1     | 1     | 1      | 646.9701                                                                                                                                                                                                                                                                                            | CUTTER SUB ASSY        |                        |  |               |      |
|               |       |       |        | 646.9603                                                                                                                                                                                                                                                                                            | LOWER CUTTER ASSY LOW  |                        |  |               |      |
|               |       |       |        | 646.9602                                                                                                                                                                                                                                                                                            | LOWER CUTTER ASSY HIGH |                        |  |               |      |
|               |       |       |        | 646.9601                                                                                                                                                                                                                                                                                            | UPPER CUTTER ASSY      |                        |  |               |      |
| .9603         | .9602 | .9601 | FIND # | PART #                                                                                                                                                                                                                                                                                              | DESCRIPTION            |                        |  | MAT'L         | SPEC |
| QTY           |       |       |        | PARTS LIST                                                                                                                                                                                                                                                                                          |                        |                        |  |               |      |
| NEXT ASSY (S) |       |       |        | <div> <div> ORIGINAL DATE<br/> ENGIN-1P<br/> DRAWN BY<br/> J. JACKSON<br/> DATE<br/> 01/20/00<br/> APPROVED<br/> BY<br/> J. JACKSON<br/> DATE<br/> 01/20/00<br/> CHECKED BY<br/> </div> <div> CIRCUIT<br/> ELECTRIC<br/> DRAWN<br/> </div> </div>                                                   |                        |                        |  |               |      |
| 646.9500      |       |       |        | <div> <div> APICAL INDUSTRIES<br/> 2608 TEMPLE HEIGHTS DR.<br/> OCEANSIDE, CA. 92056-3512 (760)724-5300 </div> <div> CUTTER ASSY </div> </div>                                                                                                                                                      |                        |                        |  |               |      |
|               |       |       |        | <div> <div> WHERE OTHERWISE SPECIFIED<br/> OR UNLESS A FTER<br/> TERMINALS ARE:<br/> 3 PLACES DECIMALS 4 51<br/> 3 PLACES DECIMALS 5 505<br/> DECIMALS 4 51 </div> <div> SIZE<br/> 07M26<br/> SCALF - NONE<br/> </div> <div> DWG NO<br/> 646.9600<br/> </div> <div> REV<br/> N/A<br/> </div> </div> |                        |                        |  |               |      |
|               |       |       |        | <div> <div> L SHEET 1 OF 1 </div> </div>                                                                                                                                                                                                                                                            |                        |                        |  |               |      |



DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------|------------------------------------|----------------------------------------------|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/>   | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> |  |
| Skid-tube <input type="checkbox"/>                           | Crosstube <input type="checkbox"/>                                                                                                                                                 | Water Jet <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Engineering <input type="checkbox"/> |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Machining <input type="checkbox"/>                           | Small Fab <input type="checkbox"/>                                                                                                                                                 | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Quality <input type="checkbox"/>     |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Thermoforming <input type="checkbox"/>                       | Finishing <input type="checkbox"/>                                                                                                                                                 | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Other <input type="checkbox"/>       |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Large Fab <input type="checkbox"/>                           | Composite <input type="checkbox"/>                                                                                                                                                 | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                                    |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |

| Root Cause    | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|-----------------------------------------------------|-------------------|--------------------|-------------|--------------|--------------|
| Design        |      |      |     |                                                     |                   |                    |             |              |              |
| Doc/Data      |      |      |     |                                                     |                   |                    |             |              |              |
| Equip/Tooling |      |      |     |                                                     |                   |                    |             |              |              |
| Handling/Pre  |      |      |     |                                                     |                   |                    |             |              |              |
| Material      |      |      |     |                                                     |                   |                    |             |              |              |
| Operator      |      |      |     |                                                     |                   |                    |             |              |              |
| Offset/Setup  |      |      |     |                                                     |                   |                    |             |              |              |
| Process       |      |      |     |                                                     |                   |                    |             |              |              |
| Supplier      |      |      |     |                                                     |                   |                    |             |              |              |
| Training      |      |      |     |                                                     |                   |                    |             |              |              |
| Transport     |      |      |     |                                                     |                   |                    |             |              |              |
| Unapproved    |      |      |     |                                                     |                   |                    |             |              |              |

### FAULT CATEGORY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crimp/Kink/Ripple/Wave<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Crushing<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Marks/Chatter<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damage/Defect<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program<br><input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete/Unqualified<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Misaligned/off center<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Off-set<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge<br><br><input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Set-up<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><br><input type="checkbox"/> Other _____<br>_____<br>_____<br>_____ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|